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ABSTRACT

Self talk (thoughts about one's self and own performance while learning or working) can affect cognitive and learning strategies that in turn affect specific learning techniques. Negative self talk can interfere with learning since it reinforces feelings of failure, thereby increasing the probability of continued failure, and maintains an unproductive level of anxiety. Remedies for negative self talk include teaching learners to become aware of what they are doing and to refocus their thinking and attention in more productive ways. A case study of a student whose negative self talk interfered with her reading comprehension demonstrates how her instructor, after hearing her "think aloud," helped her to develop more effective learning strategies as well as more effective self talk. Teachers can gain access to students' self talk in one-to-one testing situations, class discussions of self talk, and one-to-one sessions in which students think aloud as they work on solving problems. Interventions for negative self talk include emphasizing that self talk is a habit that needs to be retrained, teaching task-relevant self talk, and reinforcing positive self talk at every opportunity. (GW)

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The Teacher Teaches Thinking Skills: Dx and Rx For Students' Self Talk

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Traditionally, educators have focused attention on content areas. This was the first frontier: how could the knowledge that one person had be transmitted to another. As educators who specialize in learning effectiveness, we push at the borders of those frontiers. In contrast to our content-area colleagues, we are more prone to concentrate on general learning strategies to help a person deal with learning tasks across a wide spectrum of subjects. Our tools are familiar - SQ3R, listening and notetaking techniques and all the other study skills so integral to what we do. But I believe it is time to push at the frontiers once again. Beyond the confines of learning principles and models and strategies lie the intimacy of the covert thinking processes of the learner. If we intervene at this level, as many are now interested in doing, then we can provide long term coping skills that a student can use with any learning strategy, and the probability is increased that the learner can use his strategies with the greatest possible effectiveness. What if we had the knowledge, ability, and methodology to intervene at the level of the processes that underlie even the strategies used for learning? To me, this newest frontier is the most exciting one; one that is rapidly changing;

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one that offers both the challenge and the frustration of the little known.

It is with some temerity as well as confidence that we presume to gain access to and intervene on the level of thought, yet that is already happening - not only by researchers, full of the possibilities of the new and burgeoning field of cognitive strategies, but also by therapists within the counseling relationship. There are applications, too, for the teacher and the learning specialist, and it is these that I wish to address in this paper.

Old Assumptions and a New Model

There has been an implicit assumption by many educators that cognitive or learning strategies and internal thought processes were one and the same. If one were using a particular problem solving method to address a certain task, one must be "thinking" the method in order to do the task. Learning specialists' contributed techniques based on learning and memory principles to make this process more efficient. This process can be visualized by referring to Figure I below where the learning specialists' technique - oriented contributions are seen against a larger field of cognitive strategies.

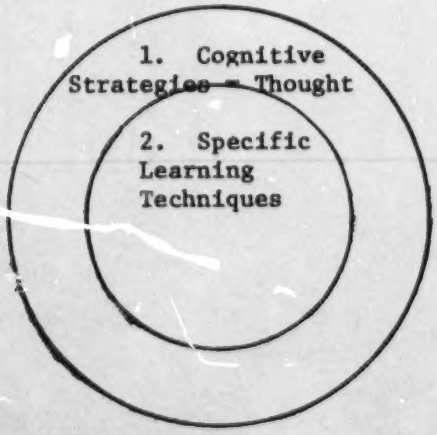

 Figure I

To re-cast this differently, it is important to recognize that all internal thought that occurs during work/learning and the strategy used to accomplish that learning are not necessarily the same process. While thinking subsumes a particular cognitive strategy,it is also more broad and includes other processes. One of these is a general coping strategy called self talk - those internal messages a person gives himself as he works. If such messages, or thoughts, are relevant to the task, they may turn into an appropriate learning strategy. If they are not, however, they may impede or stop the progress of the learner and an appropriate learning strategy can be applied only with great difficulty,if at all. The techniques used to aid learning are similarly affected when thoughts are not task-relevant. Figure 2 illustrates this relationship. Self talk is seen as a predecessor to cognitive strategies which in turn precede the application of specific techniques.

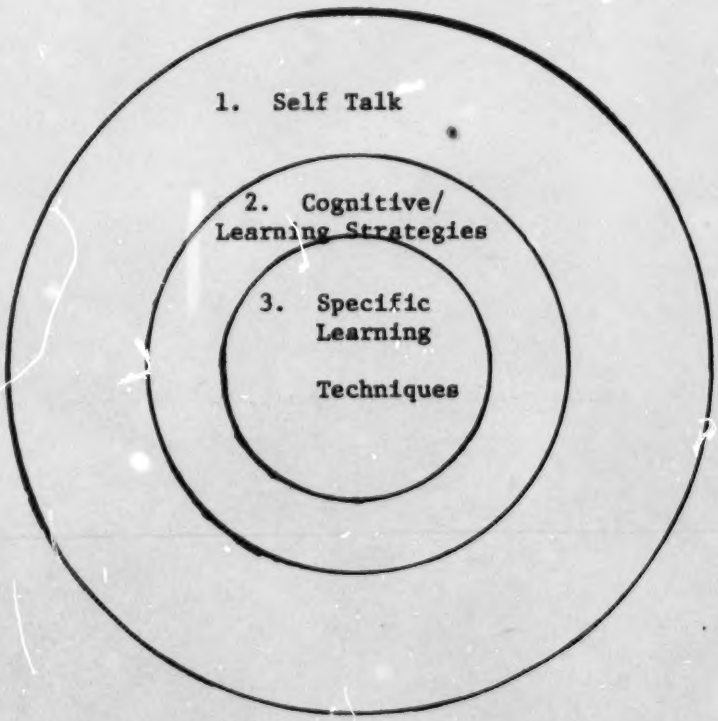

Figure 2

This implies a new goal for learning specialist: rather than remaining focused on the tertiary level of specific learning techniques, a broader intervention can be made at the level of internal thought processes. The modality to be used is self talk - what the student says to himself and about himself as he learns, or solves problems or takes tests. This provides an important key to his progress as self talk can either work for or against a person. Our emphasis will be on negative self talk. As educators, we need to know how to gain recess to students' self talk, how to diagnose learning problems from it, and then, how to intervene.

How Negative Self Talk Interferes

First, it is important to know when and how negative self talk can be a disadvantage to the learner. Inefficient learning usually occurs when thoughts become negatively self-evaluative: when the thinker disparages himself, compares his own performance negatively to others, catastrophizes, displaces anger or fear onto the teacher or the work assignment. Frequently, people with poor self talk concentrate on unpleasant somatic sensations. Poor self talk "sounds" like these examples:

> "I'm so stupid! I should know how to do this problem; it's based on simple algebra. What's the matter with me?" (self disparagement)
>
> "Oh Lord! He's turning in his test and I'm only halfway through mine! I'll never make it, I just know I won't!" (comparing one's own performance negatively with another)
>
> "There - I know I've missed another question. That must make five I've missed. I'll fail this test and then fail the course. I'll never get into law school!" (catastrophizing)
>
> "This stupid assignment! If this prof weren't so dull I could concentrate and do much better. This stuff is a total waste." (displaced anger)

"Oh dear, I'm sweating and feeling sick to my stomach. If he calls on me in French, I'll never be able to respond. Oh, my stomach feels awful!" (somatic complaints)

In every case, attention (self talk) is directed away from the task and towards something else - usually the thinker. In other words, thinking is no longer task-relevant.

How does this interfere in learning? In most cases, the thinker is rehearsing past failures or he's reinforcing himself in the moment for an imagined failure - and thereby increases the probability that he will do so. Still another indicator that this type of thinking is destructive is that it frequently either triggers or maintains an unproductive level of anxiety. Even when anxiety is not present, unhelpful self talk interferes by reinforcing the process of poor concentration. Thoughts become distractors keeping the student away from his task instead of guides leading him through it.

Two Remedies

What is the antidote for negative self talk? In short, it is to teach the learner to re-focus his thinking in a helpful way on what he is doing. This sounds simplistic, but it must be remembered that unconstructive self talk is usually a firmly ingrained and longstanding habit, and one does not break such habits lightly. One remedy is a six-step plan: 1) bringing the habit into awareness, 2) understanding what is wrong, 3) knowing what corrections are possible, 4) instituting the new corrective behavior, 5) modifying and adapting it and 6) practice, practice, practice. If successful, a new, more adaptive set of behavior supplants the old, and a new habit is born.

When negative self talk occurs, there is also a content-to-process shift on the part of the thinker. He needs to become aware that he has

shifted in his thinking form the content of whatever he is working on to the processing of his own reactions ("I feel so dumb," etc.) A second remedy is to teach a new type of content to process shift so that the learner can catch himself at what he is doing and re-focus his thinking and attention in more helpful ways. This might go something like:

> "I'll never make it! I'm missing too many questions on this test! OK, calm down. This kind of stuff won't help. Let's see. I'll re-read the question and see if I can make sense of it. If not, I'll go to an easy question."

The new shift puts emotional reactions behind, or at least in perspective and quickly moves the thinker back to the task. Let me illustrate how I have worked with these methods with a student.

A Case Study

Cheryl P. was a fifth grade teacher of slightly retarded children who enrolled in a Developmental Reading class several years ago. Ostensibly she wanted to "become a better reader, " but as the class progressed it became obvious that she also had a covert goal; she wanted to see if she could improve her reading skills enough to re-take the GRE and be admitted to graduate school. It was clear that she identified strongly with her pupils and felt she was not terribly smart. Over and over she said, "I can really understand how they feel . . . I've never been able to do these things well either, and it's especially hard for me to take standardized tests."

One evening, she did so poorly on a group reading comprehension exercise that I began to work with her individually. I didn't believe she lacked ability and suspected that something else was hampering her progress. I asked her to "think aloud" as she tried to answer the reading questions following a brief essay. I also made a guess that

she was saying something negative to herself about how I would evaluate her. She soon corrected me, putting her own negative statement about my evaluation in her own words. As this occured, I was able to "hear" her self talk and was soon able to diagnose on two levels: what she was saying about herself that g[illegible] in her way (the process level) and where she was failing in her strategy to find the answer. We discussed self talk and I modeled some ways to re-focus on the reading instead of on herself. Next, I suggested a way to implement the strategy she was using so that it was more effective. When I asked her to read a new essay and answer questions about it, there was a satisfying difference in her performance. In thinking about this, I think that three steps were important:

1. The initial informal diagnosis was based on self talk inferred from the things she was saying about herself.

2. The intervention was two-pronged: based both on expanding her particular problem-solving model (an active learning strategy) and on effective self talk (an active coping strategy which underlay and facilitated her learning strategy).

3. I encouraged and modeled a shift from content questions about the essay, where she was stalled, to her process which caused the stall and where she got herself refocused on the task.

Content was what Cheryl started out with - what the essay was about and which were the correct answers to the questions. However, there came the inevitable point at which her own process became more important. The feelings she was experiencing predominated as she became more frustrated and her self talk became negative. The intervention was made on that level - the process level - first to relax her, next to help her control her own mounting anxiety, and last to provide some ongoing coping skills (more helpful self talk) that could be broadly used as well as in that specific situation.

Learning Students' Self Talk

How does one gain access to students' self talk? Several ways come to mind immediately. One-to-one testing is a prime opportunity with children. The younger the person being tested, the more likely it is that he will talk out loud as he takes the test. When I administer WISC-R's to children, I always note what they say as they work. Many usable recommendations to parents and teachers come from these.

Another way is to model both good and bad self talk while teaching a class. I do this constantly with my adult classes before in-class exercises. I begin by giving them a humorous example - usually of me engaging in unconstructive self talk on a similar exercise. They laugh and recognize themselves too, and when I ask if any of them say things like that to themselves, the class is usually ready to share some prime examples. Next I explain how this kind of thinking gets in the way and briefly illustrate the difference between unhelpful and task-relevant self talk. As classes progress, they are asked to monitor what they say to themselves routinely. Students can be reinforced with handouts on self talk, comments written in their individual class worksheets, and it usually does not take long to get some success stories. At this point, it is important to switch to reinforcing successes. After a given exercise, for example, I might take just a minute or two to ask students to tell me one thing they did in the exercise that worked well, or with which they were especially pleased. By this time, they are all well attuned to my methods and I'm likely to hear things like "I really liked it when SQ3R went smoothly this time" or "I was especially efficient today on a problem that took me twice as long last week." They are reinforcing successes! They are practicing the invaluable habit of recognizing and acknowledging themselves for genuine achievements done in

small, discrete steps - a process which also underlies effective thinking skills.

Last, and equally important as learning what the process of constructive self talk is all about, is to ask the student to learn aloud. Encourage him to think aloud as he solves a math problem. Facilitate his doing this with gentle questions and hypotheses about what you think might be going on in his mind if he gets stuck or is shy. Let his corrections and additions guide you until you have a feel for what he is doing as he thinks - helping or hindering himself.

Interventions for Poor Self Talk

Once you know what a student is thinking, what do you do about it?

Don't discount it. Negative self talk is usually already an instance of the person discounting himself. To give a further discount ("Oh George, it's silly to think that way.") is likely to generate more unhelpful self talk - and this time it won't be shared with you ("Oh Lord, I knew that was stupid and now I feel like a fool").

Emphasize that self talk is a habit that needs to be retrained and that this takes time. I learned this the hard way when I told a GRE Prep. class about helpful and unhelpful self talk. After the test, one of my students returned and told me that she had caught herself engaging in poor self talk in the test, and promptly put herself down since she also knew how destructive poor self talk can be. A "double dump" situation like this can frequently be circumvented simply by telling students about it.

Teach task-relevant self talk. This is done most effectively by modeling, following up with handouts, then with verbal reinforcement in subsequent classes. For anxiety, teach short relaxation methods

like deep breathing that can be practiced as soon as the person becomes aware he is thinking anxiety-producing thoughts. For poor concentration, teach Wark and Raygor's channeling methods (2) that encourage the student to separate his daydreaming from his reading or work, and gradually increase the length of time he can concentrate without distracting thoughts. For both, give skills relevant to the content being taught (learning techniques) as well as the coping skills applicable to a better learning process (appropriate self talk).

Reinforce good self talk at every opportunity until the new habits are firm and stop reinforcing poor self talk as soon as students know what it is. Teach students to reinforce their own positive self talk and not to sneakily discount themselves. "I did that really well" is a good reinforcing statement but "I did really well even though I'm usually not good at it" contains a discount. Shape behavior. You can do this by stopping a person in mid-discount and thanking him for sharing the complimentary portion of what he has said. Later, you can teach students to do this for themselves.

Task-appropriate self-talk is a broadly based coping strategy that forms an important foundation for cognitive strategies as well as for study and learning techniques. It is a key to decelerating anxiety, accelerating concentration, and when it includes self-reinforcement for behaviors well done, it becomes a key to increasing positive self esteem. Think to yourself "I think I'll see what I can do with this" (instead of "I could never try this with my students") and push at the edges of our new frontier.

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